

**Rio Mesa Solar Electric Generating Facility (RMSEGF)
(11-AFC-4)**
Applicant's Specific Comments on the Preliminary Staff Assessment

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SPECIFIC COMMENTS

1. **Page 4.10-2, First Bullet:** Please revise the bullet as follows:

- Surface Water: The project would use groundwater for project operation. As discussed in the Water Supply section of this PSA, analyzing the extent to which the groundwater in the vicinity of the project may be is-hydraulically connected to the Colorado River presents several technical challenges. Potential impacts to the Colorado River are analyzed in the Water Supply section of this Preliminary Staff Assessment (PSA). Applicant and CEC staff have agreed to implement Any impact from the use of the project on the Colorado River would be offset in accordance with staff's proposed Condition of Certification WATER SUPPLY-56, which would offset all project groundwater use over the life of the project within the Colorado River basin or PVMGB.

2. **Page 4.10-5, Second Full Paragraph:** Please revise this paragraph as follows:

Groundwater from the PVMGB is the primary natural water supply for the valley region. Groundwater outflow is through evapotranspiration, agriculture runoff drains, and under flow to the Colorado River. Historically, because of agricultural development, groundwater consumption exceeded groundwater recharge and adversely affected Colorado River flows and agreements surrounding water volume flow in the river. Groundwater levels and storage declined, and now water use is regulated by a complex set of laws and rules known as 'Law of the River' (USBR, 2012). As discussed in the Water Supply section of this PSA, approximately 75%, or 357,000 acre-feet per year of the annual groundwater budget for the PVMGB and Palo Verde Valley Groundwater Basin (PVVGB) located to the east of the PVMGB is discharged to the river through a network of drains constructed by the Palo Verde Irrigation District to lower groundwater levels below the surface and crop root depths. Consequently, the basins experience a generally constant hydrostatic groundwater surface which has stabilized and will continue to stabilize groundwater levels use in the region. Depth to groundwater at the project site is ~~now~~ approximately 125 to 145 feet below ground surface (bgs) (BS 2011a).

3. **Page 4.10-10, First Paragraph, Last Sentence:** Please revise as follows:

Excess surface flow drains to the east, and may encounter the Hodges Canal, a groundwater drainage facility constructed by the Palo Verde Irrigation District in the agricultural lands located to the east of the project which ultimately discharges water to the Colorado River-(BS 2011a).

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4. **Page 4.10-10, Second Paragraph:** This paragraph should be revised to delete the reference to 0.65 acres of potentially jurisdictional wetlands within the project. Applicant is continuing to work with USACOE to evaluate the extent of jurisdictional waters on the project site and does not believe this figure is accurate. Please revise the paragraph as follows:

Native vegetation in the region primarily consists of three plant community types: creosote bush scrub associated with undeveloped desert areas; ~~riparian~~ plant communities associated with ephemeral alluvial washes and channel banks of the Colorado River and its various canals and drains located offsite; and agricultural areas in active cultivation, also located offsite. ~~Approximately 0.65 acres of potentially jurisdictional wetlands are within the project boundary along the central eastern part of the project (BS, 2012v). Additional wetlands are located adjacent to the project on the east near Hodges canal.~~ A revised Preliminary Jurisdictional Delineation (PJD) was submitted to the U.S. Army Corps of Engineers (COE) on October 2012, and the Project and the COE are continuing to refine and finalize the delineation of onsite waters, wetlands, and other jurisdictional features.

5. **Page 4.10-11, Surface Water Features, Third Paragraph:** Please revise as follows:

A revised Preliminary Jurisdictional Delineation (PJD) was submitted to the U.S. Army Corps of Engineers (COE) on October 2012, and the Project and the COE are continuing to refine and finalize the delineation of onsite waters, wetlands, and other jurisdictional features. A copy is attached to these comments. A total of 29 ephemeral washes were mapped in the project area by the applicant. Three of the ephemeral washes were determined to be "Waters of the U.S." by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act (BS 2011a, TN 63638 02-9-12, Preliminary Jurisdictional Determination Acceptance), as shown on Soil and Surface Water Figure 2. For further discussion on the jurisdictional determination, please refer to the Biological Resources section of this PSA.

6. **Page 4.10-11, Final Full Paragraph:** Please delete Soil and Water Figure 2 as it refers to a flood map, not the PJD map, and please cite instead to the Biological Resources section of the PSA as noted in comment (4) above. Please also see Figure 6 of the Revised Rio Mesa SEGF PJD.

7. **Page 4.10-12, Final Full Paragraph:** Please revise as follows:

~~Two~~ Three new production wells would be installed prior to project construction to supply water for both project construction and operation. Two would be the primary operational and construction water supply wells, and one would function as a backup well facility.

8. **Page 4.10-17, Last Paragraph:** Please revise as follows:

The Rio Mesa SEGF would be constructed on soils consisting of the Aco-Rositas-Carrizo group and the Gunsight-Rillito-Chuckawalla group. These soils consist of gravel, sand, and loam and are well to excessively well drained soils that have a high rate of water transmission. The Gen-Tie line would be built on Aco-Rositas-Carrizo group and Rositas-Carsitas-Dune Land group soils (BS 2011a: Appendices 5.11A and 5.11B). Wind and

water erosion is evident in these soils. Wind deflation areas are present at the Rio Mesa SEGF site. There is ample evidence pointing to the presence of storm water sheet flow. Major and minor washes dissect the Rio Mesa SEGF site. At other locations, old and new sand dunes are present. The storm water that does not evaporate, transpire, or percolate into the ground, tends to flow to the east and may enter the Hodges Canal, a groundwater drainage facility constructed and maintained by the PVID in the agricultural lands located to the east of the project site. discharges to the Hodges Canal and, ultimately, to the Colorado River. Because storm water from the proposed project site can discharge to the Colorado River, storm water flow at the proposed project site is a U.S. Army Corps of Engineers (USACE) jurisdictional feature subject to regulation under the federal Clean Water Act (USACE 2010). Further analysis and mitigation of these potential impacts is discussed. Please refer to in the **Biological Resources** section of this PSA for more information regarding stormwater flows and potential impacts to jurisdictional waters.

9. Page 4.10-19, Last Paragraph: Please revise as follows:

The applicant ~~has not~~ provided a DESC/SWPPP for staff analysis in response to DR #80. The preliminary DESC/SWPPP identified ~~The applicant has indicated that it would prepare a DESC, in accordance with the Energy Commission standard conditions of certification, which would include BMPs for wind and water erosion control during project construction[...].~~

10. Page 4.10-20, First and Second Paragraph: The PSA states that Applicant has not submitted a DESC/SWPPP that would be adequate for the Rio Mesa SEGF. The PSA only references Applicant's submittal of the DESC/SWPPP for the Ivanpah Solar Electric Generating System ("ISEGS"). Applicant originally included the ISEGS DESC/SWPPP as part of the AFC. However, in response Data Set 1A, Data Request 80, Applicant submitted a detailed, draft DESC/SWPPP that is specific to the Rio Mesa SEGF. Applicant's Data Response #80 was docketed on March 9, 2012. An updated DESC/SWPPP has recently been prepared to reflect the two-unit facility described in Applicant's EEP. A slip sheet at the end of this comment section includes a CD that contains a copy of the updated documents.

11. Page 4.10-22, Second Paragraph: The Project does not constitute an "unusual circumstance" with respect to developing on active alluvial fans. The total project area is larger than some, but not all large-scale renewable energy projects approved by the Commission in recent years. In addition, unlike other technology types, Applicant's technology avoids the need for extensive grading in the heliostat fields, thereby minimizing the potential for erosion.

12. Page 4.10-22, Third Paragraph: The presence of heliostats will not tend to "promote the concentration of flows in their vicinity" and lead to localized erosion around the heliostats. For example, at ISEGS, the installation of heliostats did not cause or promote erosion to the extent modeled during the licensing proceeding. There have been several large storms and actual erosion has been far less than anticipated.

13. Page 4.10-25, Last Paragraph: Please revise as follows:

To evaluate specific flood hazards at the project site, the applicant performed modeling that estimates that the 100-year, 24-hour storm flows are confined to the large washes

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and in the wetlands area located to the east of the Rio Mesa SEGF. Storm water would be allowed to flow through the project site using the naturally developed drainage system in all areas except at the power blocks and the common area. Storm water flow to these areas would be concentrated and diverted away from these areas and introduced downgradient as sheet flow (BS 2011a).

14. **Page 4.10-26, Last Paragraph and Carryover:** Final design drawings for the two evaporation ponds are the same as those submitted for the three unit project (see Applicant's Response to Staff Data Request #168, docketed June 2012).
15. **Page 4.10-29, Riverside County General Plan and Renewable Energy Ordinance:** Please update the language in this section to refer to Ordinance 745.2 and revise the second paragraph to recognize that Rio Mesa SEGF is a zero liquid wastewater discharge facility.

The Riverside County ~~General Plan~~ Ordinance 745.2 lists Water Resources goals and policies, which include that new industrial developments must reduce polluted runoff from entering surface waters by complying with the Clean Water Act, must reduce direct-source pollution into surface waters, and must implement appropriate mechanisms to reduce wastewater discharge...~~Staff believes that Rio Mesa SEGF does not specifically~~ would reduce direct-source discharge through the implementation of BMPs.

16. **Page 4.10-32, Second Bullet Point:** Final design drawings for the two evaporation ponds are the same as those submitted for the three unit project (see Applicant's Response to Staff Data Request #168, docketed June 2012).